

WA State Consolidated Technology Services State Data Center Projects

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| Prepared By: | Consolidated Technology Services |
| Date: 09/24/2012 | Period Covered: October 1 – October 12 |

Project Dashboard

| | Scope | Schedule | Budget |
|---------------------------------------|-------|----------|--------|
| Project Name | | | |
| SDC Program | | | |
| OB2 Heat Reduction | | | |
| SDC Facilities | | | |
| SDC Network | | | |
| SDC Firewall | | | |
| SDC Storage Optimization | | | |
| SDC Cloud Utility Service | | | |
| OB2/CTS Move Phase 1 (Pending) | | | |
| Migrate WSP to SDC | | | |
| Virtual Tape Library | | | |
| OB2/CTS Move Phase 2 | | | |
| OB2 Data Center Optimization | | | |

| | | Baseline Budget as of 6/2012 Approved Investment Plans | As of 9/30/2012 |
|--------------|------------------------------|---|--------------------|
| Phase # | Phase | Budget | Actuals |
| 0 | SDC Program | \$2,729,570 | \$1,572,362 |
| 1 | OB2 Reduce Heat | \$0 | |
| 2 | Facilities Op Readiness | \$2,673,817 | \$1,666,550 |
| 3 | NW Core Op Readiness | \$8,592,141 | \$5,555,450 |
| 4 | Firewall | \$3,671,579 | |
| 5 | Storage Optimization | \$4,294,613 | \$782,641 |
| 6 | Cloud Utility Service | \$1,000,000 | |
| 7 | OB2 Move Phase 1 | \$6,700,814 | |
| 8 | Virtual Tape Library | \$1,950,000 | |
| 9 | OB2 Move Phase 2 | \$4,338,749 | |
| 10 | OB2 Data Center Optimization | \$1,500,000 | |
| 11 | Migrate WSP | \$2,000,000 | |
| Total | | \$39,451,283 | \$9,577,003 |

This graphic shows the baseline budget for all SDC projects
(includes both implementation costs and 5-yr maintenance commitments).

Scope Key:

- G** = No issues are impacting scope
- Y** = Issues are being tightly managed, but may impact scope
- R** = Unresolved issues are preventing progress of identified scope

Schedule Key:

- G** = On schedule
- Y** = Key milestones are more than 2 weeks late
- R** = Key milestones are more than 8 weeks late

Budget Key:

- G** = Planned spending is within 5% to 10% of agreed upon budget
- Y** = Planned spending is within 11% to 20% of agreed upon budget
- R** = Planned spending is greater than 20% of agreed upon budget

SDC Projects Status

| Project | Planned for this Reporting Period (October 1 – October 12) | Status of Work Performed this Reporting Period (October 1 – October 12) | Planned for Next Reporting Period (October 15 – October 26) |
|--|--|--|--|
| SDC Program | <ul style="list-style-type: none"> Continue work on Design Decisions: <ul style="list-style-type: none"> SDC-036 Converged Networking SDC-007A Security Connectivity SDC-021 DH1 Intra-Row cabling SDC-028 Storage Switch placement (complete signatures process) SDC Roadmap status (present on 10/3/2012) SDC Lab – Begin high level design | <ul style="list-style-type: none"> Continue work on Design Decisions: <ul style="list-style-type: none"> SDC-036 Converged Networking SDC-007A Security Connectivity SDC-021 DH1 Intra-Row cabling SDC-028 Storage Switch placement (approved) SDC Roadmap status presented 10/3/2012 SDC Lab – Continued high level design | <ul style="list-style-type: none"> Continue work on Design Decisions: <ul style="list-style-type: none"> SDC-036 Converged Networking SDC-007A Security Connectivity SDC-021 DH1 Intra-Row cabling SDC-032 9509 End of Life SDC Lab – Continue high level design Work with facilities on procedures |
| OB2 Heat Reduction Reduce the amount of heat being generated in the OB2 data center and provide an incident response plan. | <ul style="list-style-type: none"> Confirm and obtain additional contact information including after hours info, as needed. Continue data input into DCIM tool. | <ul style="list-style-type: none"> Continued data input into DCIM tool – have just two remaining – TSD and DSHS. | <ul style="list-style-type: none"> Continue data input into DCIM tool. Verify status of final report – re: any additional input from project sponsor before finalizing report. |
| SDC Facilities Prepare the SDC facility for customers. Includes preparing the critical environment (electrical/mechanical), floor space and physical security for customers. | <p><u>Space Management:</u></p> <ul style="list-style-type: none"> Continue work on operating procedures Job positions have been posted both for internal and external applicants. Order structured cabling for storage Define required procedures and implementation plan. <p><u>Physical Security:</u></p> <ul style="list-style-type: none"> Security segregation work ongoing. Define required procedures and implementation plan. <p><u>Critical Environment:</u></p> <ul style="list-style-type: none"> Define required procedures and implementation plan. | <p><u>Space Management:</u></p> <ul style="list-style-type: none"> Worked continued on draft operating procedures and implementation. Candidates for the two job positions have been identified. Interviews will be scheduled. Waiting for network design details before structured cabling can be ordered. Hardware installation completed for network core. <p><u>Physical Security:</u></p> <ul style="list-style-type: none"> Security segregation work ongoing – still on track by end of November. Work continues on procedures and implementation plan Met with perimeter security consultant to review scope of work. <p><u>Critical Environment:</u></p> <ul style="list-style-type: none"> Work continuing on required procedures and implementation plan. | <p><u>Space Management:</u></p> <ul style="list-style-type: none"> Continue work on operating procedures and implementation. Interviews scheduled for two job openings; should be concluded by November 9 Order structured cabling for storage Cabling activity underway for network core <p><u>Physical Security:</u></p> <ul style="list-style-type: none"> Security segregation work ongoing. Continue to define required procedures and implementation plan. <p><u>Critical Environment:</u></p> <ul style="list-style-type: none"> Define required procedures and implementation plan. |

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| SDC Network Core Establish the network core in the SDC and connect with the OB2 network. | <ul style="list-style-type: none"> Continue OB2 Lab testing of 5K and 7K - MPLS and Fabric Path functionality required for SDC Network Core. Begin detail planning for OB2 CRS/M6 equipment moves to SDC. Continue work on server installation to support Cisco Network Management. Continue work on Cisco Engineering Low Level Design (LLD). Install GPS Antenna and Server equipment. Begin Cisco Rack & Stack Equipment installation. Begin work on Cisco and CTS test plans for SDC Network Core. | <ul style="list-style-type: none"> Worked on OB2 Lab testing of 5K and 7K - MPLS and Fabric Path functionality required for SDC Network Core. Worked on migration plan for CRS/M6 moves from OIB2 to the SDC. Worked on server installation for Cisco network management function. Worked on reviews of Cisco Low Level Designs (LLD) for Data Center Networking, Optical, Storage, and Data Center Network Management. Completed installation and testing of GPS antenna system. Completed Rack & Stack Equipment Installation. No action on CTS Test Plans | <ul style="list-style-type: none"> Continue OB2 Lab testing of 5K and 7K - MPLS and Fabric Path functionality required for SDC Network Core. Finalize migration plan for OB2 CRS/M6 equipment moves from OB2 to the SDC. Continue work on server installation to support Cisco Network Management. Finalize Cisco Engineering Low Level Designs (LLD). Begin Rack & Stack Equipment Cabling phase. Begin Rack & Stack Base Configuration phase. Continue work on Cisco and CTS test plans for SDC Network Core. |
| SDC Firewall Project Replace aged and over-capacity firewalls and deliver enhanced data security services to both OB2 and SDC. | <ul style="list-style-type: none"> Fortinet Engineer onsite Sign Project charter Discuss the lab design and tests Meet with CTS team for introductions and kick-off | <ul style="list-style-type: none"> Fortinet Engineer will now be onsite beginning of November due to having to relocate from Chicago Project charter is in the process of being signed Discussed the lab design and tests Meeting with CTS team for introductions and kick-off will be scheduled for Oct 22-24 | <ul style="list-style-type: none"> Fortinet Engineer onsite Sign Project charter Meeting with CTS team for introductions and kick-off |
| SDC Storage Optimization Replace aged systems and optimize the environment to reduce rates. | <ul style="list-style-type: none"> Complete Contract Negotiations Complete Developing Statement of Work Complete ESRS Software installation and configuration Complete installation of 4 -48 port line cards in OB2 9513s Submit VMAX Order Continue working with Cisco AS on SAN Low Level Design | <ul style="list-style-type: none"> Contract Negotiations continue with OLS and Presidio Statement of Work development continues Firewall access request submitted Working on order for GEN4 upgrade for SDC9513 Working on order for Fabric3 upgrade for OB2 9513 Working on VMAX order SAN LLD approved | <ul style="list-style-type: none"> Contract approved and signed Statement of Work approved and signed ESRS Firewall rules approved, implemented, and tested Order VMAX Install SDC9513 GEN4 cross-bar and line cards Work with Cisco on SAN Network Implement Plan and Network Ready for Use Plan VMAX weight distribution tiles installed |

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| CTS Cloud Utility Servers Project Provide a utility computing platform for CTS customers. | <ul style="list-style-type: none"> Continue drafting the investment plan, including defining high level schedule, budget, and procurement strategy | <ul style="list-style-type: none"> Drafted an initial cut of the investment plan. Meeting with internal CTS stakeholders to refine and update the plan. | <ul style="list-style-type: none"> Update investment plan based on further planning. |
| OB2 Risk Mitigation (CTS Move Phase 1) Move selected CTS equipment that best alleviates the heat issue in OB2. | <ul style="list-style-type: none"> Continue facilitating approval of the investment plan. Continue work sessions to plan hardware enclosures and cabling needed for each group. Continue development of dependency mapping and project definitions for Move Phase 1 projects. | <ul style="list-style-type: none"> Completed internal CTS approval of the investment plan. Plan submitted to the OCIO for approval. Conducted hardware planning for the Security projects. Drafted dependency map for the Messaging projects. Assigned a project manager to the Security projects. Refined Security's section of the task plan and schedule. Updated a project change request to align the project's initial budget and scope with the investment plan. | <ul style="list-style-type: none"> Identify the initial systems that will be migrated to the SDC over the first few months. Update the task plan to reflect the migration sequence. Complete the dependency map for the Messaging projects. Support the refinement of the virtual host refresh tasks plan and schedule. This is being moved to another project but is critical to Move Phase 1. |
| Migrate WSP to SDC Plan and execute the first phase of migrating the WSP data center to the SDC. | <ul style="list-style-type: none"> Continue work on the Inter Agency Agreement (IAA). Continue efforts to establish SDC rates. Provide WSP specific input into the SDC Service Level Agreement (SLA) discussions. | <ul style="list-style-type: none"> Completed the initial draft of the IAA and submitted to WSP for review and feedback. CTS and OFM continue to work towards establishing SDC rates. CTS continues developing a standard SLA template for SDC customers. No action taken on the SLA for WSP. Updated the project plan to include the work effort to connect the WSP data center to the SDC through the SMON. | <ul style="list-style-type: none"> Complete the IAA draft for WSP/CTS management approval. Continue efforts to establish SDC rates. Update the cost model to identify what cost items can be purchased with project funding. Obtain an updated quote to connect the WSP data center to the SDC through the SMON. |
| Virtual Tape Library Disaster Recovery (VTL) Procure additional VTL equipment to eliminate the tape backup system and support mainframe disaster recovery. | <ul style="list-style-type: none"> No activity to report | <ul style="list-style-type: none"> No activity to report | <ul style="list-style-type: none"> VTL strategy discussion planned for next week. |
| OB2 Risk Mitigation (CTS Move Phase 2) Continue the progress of Phase 1 by moving | <ul style="list-style-type: none"> No activity planned for next reporting period. | <ul style="list-style-type: none"> No activity planned for next reporting period. | <ul style="list-style-type: none"> No activity planned for next reporting period. |

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|--|--|--|--|
| additional CTS equipment to the SDC. | | | |
| OB2 Data Center Optimization Reconfigure remaining equipment in OB2 to optimize airflow and cooling. | <ul style="list-style-type: none"> No activity planned for next reporting period. | <ul style="list-style-type: none"> No activity planned for next reporting period. | <ul style="list-style-type: none"> No activity planned for next reporting period. |

External Project Collaboration

| External Project | Planned for this Reporting Period (October 1 – October 12) | Status of Work Performed this Reporting Period (October 1 – October 12) | Planned for Next Reporting Period (October 15 – October 26) |
|--|--|--|--|
| Server Virtualization Virtualize 60% of CTS physical servers by 7/1/12. | <ul style="list-style-type: none"> A meeting will be scheduled to determine if the project should be closed since it has met/exceeded its target. | <ul style="list-style-type: none"> It was determined that the project will be closed since it has met/exceeded its target. | <ul style="list-style-type: none"> No action planned. |
| Command Center Establish command center support for the SDC. | <ul style="list-style-type: none"> Waiting on a decision to determine the location of Command Center in the SDC or 1500 Jefferson Building before additional planning can be completed. | <ul style="list-style-type: none"> No action planned. | <ul style="list-style-type: none"> No action planned. |
| Replace Cisco MDS 9509 SAN Fabric Switches Replace SAN fabric switches in OB2 that are at end of vendor support. | <ul style="list-style-type: none"> Get Charter Approval Complete the High-Level Design | <ul style="list-style-type: none"> Continue working on Charter Approval Continue work on the High-Level Design Started developing the High-Level Schedule | <ul style="list-style-type: none"> Get Charter Approval Complete the High-Level Design Complete the High-Level Schedule |
| VLAN Renumbering Optimize VLAN numbering | <ul style="list-style-type: none"> Gain approval of the Project Charter. Begin work on WBS and Project Schedule. | <ul style="list-style-type: none"> No Action. | <ul style="list-style-type: none"> No action planned. |
| PBX Implement new PBX system | <ul style="list-style-type: none"> Work on the PBX processor equipment acquisition Work on the PBX processor installation/configuration acquisition | <ul style="list-style-type: none"> The PBX processor equipment acquisition is complete as of 10/8 The PBX processor installation/configuration acquisition is complete as of 10/11 | <ul style="list-style-type: none"> Work with on the PBX processor installation/configuration Upgrade survivable processors at Cherry Plaza, Vancouver and Aberdeen |

Top Issues *

Issue Key: *Green* = Issue does not require action within 30 days, *Yellow* = Issue requires action within 30 days, *Red* = Issue requires action within 10 days or less

| Issue # | Summary Description | Assigned | Priority (R,Y,G) | Opened Date/by | Next Review Date | Target Resolution Date | Resolution | Status |
|---------|--|----------|------------------|----------------|------------------|------------------------|--|--------|
| 132 | Roles & Responsibilities for the Storage Switches and converged network need to be defined. This includes who manages the SDC fiber channel switches and the roles and responsibilities for troubleshooting fiber channel over Ethernet (FCoE) across the converged network. | SDC | Y | 11/3/11 | 11/7/12 | 11/30/12 | Jeff is working to define/document the options to be reviewed by the team. | Open |
| 145 | Potential SDC Customers will need to know the billing rates for SDC products and services before they move into the SDC. Both DSHS and WSP have stated that they will not move into the SDC until they know what ongoing operations will cost. | Finance | Y | 3/16/12 | 11/7/12 | 11/7/12 | The CTS Finance group continues to work this. | Open |
| 199 | Need to determine the scope and inter-dependencies for VTL | Storage | Y | 7/22/12 | 12/19/12 | 12/31/12 | VTL strategy discussion occurred. Valerie to research open questions. | Open |
| 206 | Procurement rules change at the beginning of 2013. Work is underway to identify new processes. Assessment needs to be completed regarding any impact to SDC procurements needed at the end of 2012 or beginning of 2013. | SDC | Y | 10/9/12 | 11/7/12 | 12/19/12 | Training is planned for November. Impacts will be assessed after training. | Open |

Issues Closed this Period

| Issue # | Summary Description | Assigned | Priority (R,Y,G) | Opened Date/by | Next Review Date | Target Resolution Date | Resolution | Status |
|---------|--------------------------------|----------|------------------|----------------|------------------|------------------------|------------|--------|
| | None for this reporting period | | | | | | | |

Change Requests *

| No. | Description | Requestor | Request Date | Assigned | Cost Impact | Schedule Impact | Status |
|-----|--------------------------------|-----------|--------------|----------|-------------|-----------------|--------|
| | None for this reporting period | | | | | | |

Status (Submitted, Proposal, Approved, Opened, Resolved, Verified, Closed)

Top 5 Risks *

| ID | Risk Description | Risk Category | Level of Impact | Likelihood | Schedule | Ability to Meet Deadline | Risk Mitigation Comment | Due Date & Action | Assigned To |
|----|--|---------------|-----------------|------------|----------|--------------------------|--|-------------------|---------------------|
| 1 | Customers that were expecting to come into the SDC right away must now wait longer, which has end of life/investment implications | Man | 3 | R | G | G | Communicate with customers the new plan and schedule. | Ongoing | Program Manager |
| 2 | Timing may force a need to place hardware in OB2, which has an adverse impact on the heat reduction effort. | Cap | 2 | Y | G | G | <ul style="list-style-type: none"> • Work with customers to identify solutions that minimize additional heat in OB2. • Institute OB2 heat reduction initiatives to turn off unused servers • Delay implementation of new hardware in OB2 as late as possible | Ongoing | Facilities |
| 3 | Because the project is large and includes substantial logistical challenges involving multiple projects/agencies, interdependencies will be complex and could be overlooked. | Man | 1 | R | G | G | <ul style="list-style-type: none"> • Apply project management practices to manage the effort. • Break the work down into small and logical units. • Use tools to track tasks, dependencies, issues, risks, etc. and automate the planning and communications as much as possible. • Implement migration approaches that minimize impacts of system dependencies, such as spanning the network between the OB2 and SDC data centers. • Use development and test platforms to verify system dependencies. | Ongoing | Sr. Project Manager |
| 4 | Even though the scope has been reduced to better match the budget, it may be insufficient. Several items remain unfunded. | Res | 1 | R | G | G | <ul style="list-style-type: none"> • Request funding for unfunded projects • Identify other funding sources (if possible) • Reduce project scope • Back-log unfunded projects | Ongoing | Program Manager |
| 5 | Resource Conflict – Program relies on functional staff with competing priorities. | Res | 1 | R | G | Y | <ul style="list-style-type: none"> • Provide clear management guidance on priorities and carefully manage functional staff to minimize conflicts in priorities and work tasks. • Expand resource management and track task assignments to the resource level. Identify areas in the plan where resource loading indicates a problem and take appropriate action. | Ongoing | Sr. Project Manager |

Risk Category = (Res)ources; (Man)agement; (Tec)hnology; (Fun)ctional; (Dev)elopment; (Int)erfaces; (Sec)urity; (Usa)bility; (Ava)ilability; (Per)formance; (Cap)acity; (Sca)lability; (Ext)ernal.

Level of Impact Key:
1=major impact

Likelihood Key:
G = Low.

2=significant impact
3=minor impact
0=no impact

Y = Moderate
R = High

Schedule Key:

G = on schedule
Y = Less than 30 days behind schedule (caution)
R = More than 30 days behind schedule (warning)

Ability to Meet Deadline Key:

G = based on current information, it appears manageable
Y = there are significant obstacles or areas of uncertainty or concerns
R = there are clearly identifiable threats or deterioration of ability to manage and control

Steering Committee Action Items

| Item # | Item Description | Assigned | Date Assigned | Date Due |
|--------|-------------------------|----------|---------------|----------|
| 1 | No pending action items | | | |